

NEW SPECIES OF COLEOPTERA FROM UTAH⁽¹⁾
(Omophronidae and Dytiscidae)

HARRY P. CHANDLER

While collecting on the Escalante River in the Colorado River region a large series of light colored Omophronidae were obtained. These proved uniformly different from our more common southern Utah form in the Genus *Homophron*. When the latter was checked it was found not to agree with any of the descriptions of this genus. Both forms are closely related to *illustre* and various subspecies of *americanum*, but have the maculations more restricted.

KEY TO THE UTAH SPECIES OF OMOPHRONIDAE

1. Elytra 15 striate.....*Homophron* 2
Elytra 14 striate.....*Prosecon* 4
2. Pale areas of the dorsal surface predominating, no rom-
boidal maculation on the suture of the elytra near
the apex 3
Dark areas of the dorsal surface about equal to the pale
areas, elytra shining, with bright dark metallic green
luster, suture usually with a romboidal maculation
near the apex.....*illustre* Csy.
3. Tips of mandibles short and stubby (Fig. 7), ground
color testaceous, maculations black, only faintly me-
tallic, ambulatorial setae on the fifth abdominal ster-
nite*tanneri* sp. nov.
Tips of mandibles long and pointed (Fig. 6), ground
color cream, maculations more confined, bright me-
tallic green in color, rarely with ambulatorial setae on
fifth abdominal sternite.....*tanneri proximum* subsp. nov.
4. Dark areas predominant, maculations black or with very
faint metallic color, striae deep and rather coarsely
and deeply punctured.....*obliteratum utense* Csy.
General color of upper surface pale, the dark markings
small without metallic color, or color very faint, luster
dull*gilae pallidum* Csy.

(1) Contribution No. 93 from the Department of Zoology and Entomology, Brigham Young University, Provo, Utah.

HOMOPHRON TANNERI Chandler, sp. nov.

FEMALE: Length 5.8–7.0 mm. Width 3.6–4.2 mm. General color, ground color of the upper surface testaceous, maculations black with faint metallic green tint, becoming stronger anteriorly, pale area predominating but less so than in Fig. 8, under surface dark piceous red. Head with angular pale smooth frontal area, metallic green basal area with punctures and sculpturing, the posterior side of the clypeus is somewhat paraboloid, the lateral edges being darkened so as to make the curve seem more even. Mandibles (Fig. 7) are short and stubby as in *H. americanum*, dorsal ridge evenly curved to join the lateral edge of the mandible. Eyes black, and prominent; antenna slender, flavo testaceous, basal four joints glabrous, distal joints pubescent. Pronotum predominantly dark, faint metallic green with pale lateral edges; posterior and anterior arms of pale extend inward becoming quite dark in color. The lateral edge finely emarginate. Elytra 15 striate, striae finely impressed, intervals moderately convex, flatly so behind the posterior maculations. Body beneath, prosternum marginate along the sides of the posterior process. Metasternum marginate along the anterior and lateral edges of the disk. Ambulatorial setae on segments 4, 5, and 6 of the abdomen.

MALE: Length 5.2–5.9 mm. Width 3.3–3.6 mm. Prothoracic tarsi with the first segments enlarged and widened having a brush underneath, second joint with small brush.

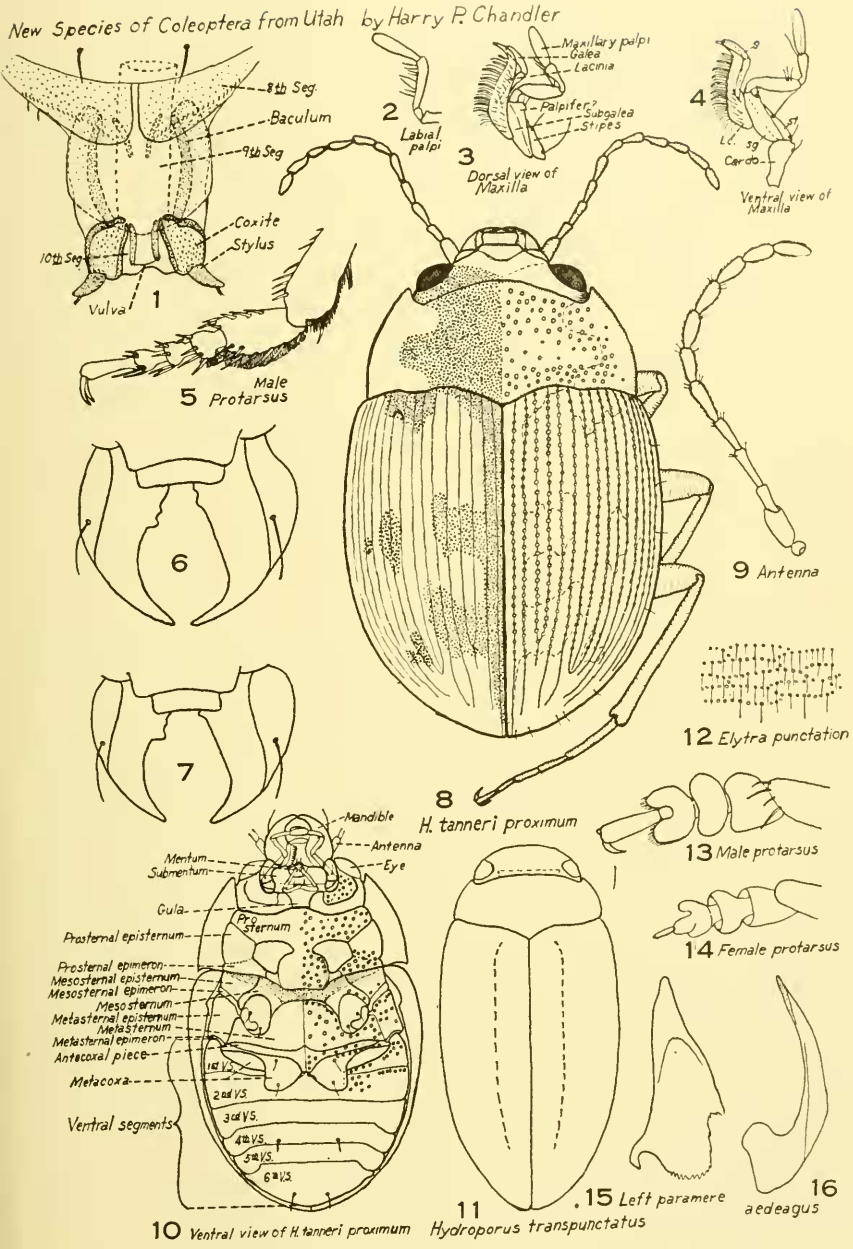
TYPE LOCALITY: Moab, San Juan Co., Utah.

Besides the female holotype and male allotype which are from Moab, Utah, there are also 35 females and 20 males from Moab, Utah, collected by the following: James Kartchner, Anson Call Jr., Irwin Rasmussen and Dr. Vasco M. Tanner. Other localities represented are La Sal, Utah (Anson Call); Blanding, Utah (Vasco M. Tanner); Marysvale, Utah (Vasco M. Tanner); and Vernal, Utah (Rowland Rigby). The holotype and allotype along with about 50 paratypes are in the Brigham Young University Collection. Paratypes will be deposited at the California Academy of Sciences and the U. S. National Museum.

HABITAT: This species is found in a sandstone desert area along the banks of rivers on the sandy banks.

REMARK: This species is related to *Homophron illustris*, and *H. americanum texanum* but is less broadly oval and smaller, especially in the male. The maculations are more restricted and the upper surface less glassy without the prominent metallic dark green luster.

New Species of Coleoptera from Utah by Harry P. Chandler



FIGURES 1 TO 16

HOMOPHRON TANNERI PROXIMUM Chandler, subsp. nov.

FEMALE: (Fig. 8 & 10). Length 6.1–6.5 mm. Width 3.7–4 mm. General color, base color of the upper surface is cream with bright metallic green maculations, pale area predominating, under surface reddish brown. Head with angular pale impunctate frontal area, metallis green basal area with punctures and sculpturing; antenna (Fig. 9); mandibles large with long sharp tips (Fig. 6), the dorsal ridge sharply bent on fusing with the lateral edge; mouth parts (Fig. 2, 3, & 4). Pronotum predominantly bright metallic green with pale lateral edges finely marginate. Elytra 15 striate, striae weakly impressed, faintly extending beyond the posterior dark spot; intervals flatly convex; punctures small and deep, not impressed behind the posterior dark spot, except rarely very faintly. Ambulatorial setae (Fig. 10) on segments 4 and 6 of the abdomen, rarely on the fifth. Genitalia Fig. 1.

MALE: Length 5.7–6.1 mm. Width 3.3–3.7 mm. Prothoracic tarsi with basal 2 joints enlarged (Fig. 5).

TYPE LOCALITY: Box Canyon near the junction of Calf Creek and the Escalante River in Garfield Co., Utah, (the first right hand canyon on the Escalante River above Calf Creek).

HABITAT: A large number of this subspecies were taken at the head of a box canyon near an isolated pool, which was about 30 feet in diameter with a small stream running out of it for about 100 feet. They were quite numerous and were found hiding in cracks and under the leaves rather than burrowing holes in the sand. This pool is about 2 miles from the Escalante River and has no water connections except possibly for a brief period during the spring runoff or thunder showers. It appears that the species may have developed around these isolated shaded still water pools at the head of the box canyons of the vicinity. On the Escalante River proper the form seems to be very variable, approaching *H. tanneri* with various combinations of the characters of each type. The individual characters do not seem to intergrade. Some specimens, seemingly hybrids, are larger and more broadly oval than either *tanneri* or *tanneri proximum*.

The holotype and allotype will be placed in the Brigham Young University collection. Besides the holotype and allotype there are 30 paratypes all from the type locality.

FAMILY DYTISCIDAE

HYDROPORUS TRANSPUNCTATUS Chandler, sp. nov.

Length, male 5 mm.; female 4.8 mm. Width, male 2.4 mm.; female 2.35 mm. General form evenly elyptical (Fig. 11); integuments shining alutaceous, elytra of male less alutaceous. Ventral side almost entirely black. Head black except for a sharply defined transverse rufous patch on the vertex, underside black. Antennae and mouth parts piceous, a little less so on the under side and at the base of each segment. Pronotum alutaceous with disk finely and sparsely punctured, margins more closely and coarsely punctured especially in the male, lateral edges finely but distinctly margined. Elytra a clear piceous brown; the suture black; the inflexed edge, which covers the black side pieces of the ventral segments, appearing black; a faint longitudinal row of coarser punctures about a third of the width of the elytra from the suture. Punctures of the elytra small arranged in transversely elongate reticulate rows, (Fig. 12), the distance between the rows about $2-2\frac{1}{2}$ times the distance between the punctures in the same row. Pubescence fine, about twice the distance between the rows of punctures in length. Prosternum and epipleura black. Metasternum and coxal plates finely and sparsely punctured, punctures coarser at sides, less so in female. Ventral segments faintly and sparsely punctured except the sides of the first and second segments of the male which are coarsely and closely punctured as is also the posterior half of the last segment; the female with obscure rufous spots at sides. Legs black except the inner sides of the tibia tarsus and trochanters which may be obscurely rufous. Pro- (Fig. 13) and mesotarsi of male broadly expanded; the second segment of the protarsus slightly wider than the first segment which is slightly wider than the third, the second segment twice as wide as long, the third with the lobes as long as the basal part, the claws large the anterior one shorter, stouter and more curved at tip. Male mesotarsus with joints 1 to 3 slightly decreasing in width, general form similar to protarsi, claws small, a little larger than those of the hind tarsi.

Female protarsi (Fig. 14) resembling somewhat the male in general form but much reduced, the fourth segment completely reduced, the fifth united with the bilobed third, so that the third appears trilobed, the posterior lobe somewhat reduced. Only one claw is developed, it is stout, small and evenly curved. Female mesotarsus not widely expanded. Male genitalia (Fig. 15 and 16).

TYPE LOCALITY: The author collected both the male Holotype and

the female Allotype on Aug. 1, 1938 at Salamander Lake (pond), Mt. Timpanogos, Ut. Co., Utah.

The holotype is labeled "Aspen Grove Ut., No. A534, 8/1/38." It will be deposited in the collection at the Brigham Young University. The allotype is labeled "Aspen Grove Ut., No. A535, 8/1/38"; it will remain in the author's personal collection.

The arrangement of the punctures of the elytra in lines is more evident if a source of light from above is used. The punctures are quite small but are evident if a good magnification is obtained. This species would likely be run to *axillaris* in Fall's key. It may easily be separated by the greater amount of piceousness of the under surface and mouthparts, and the arrangement of the punctures of the elytra. The modification of the female protarsus is quite unique if it proves constant.

Painted Lady Butterfly in Migration

Again we wish to record the migratory movements of the Painted Lady Butterfly, *Vanessa cardui* L. While on a collection and study trip through southwestern Utah and Clark County, Nevada, the writer encountered large numbers of this species at Kanarraville, Iron County, Utah, on April 27, 1941. They were flying northward along highway 91. I continued to pass through hundreds of specimens flying from three to ten feet high, down to Anderson's Ranch in Washington County, Utah. From here to Hurricane and St. George there was about the normal number of specimens of this species, flitting about in the fields and along the highway. On April 30 I again encountered this species in migration northward over the Mormon Mesa in Nevada. This same species was common around Boulder City and Hemenway Wash and on Horseshoe Island in Mead Lake on May 1, 2, and 3. Mr. Russell K. Grater, Zion Park Naturalist and Dr. A. M. Woodbury of the University of Utah, reported to the writer a heavy migration northward in Sevier and Sanpete valleys of central Utah from April 30 to May 5, 1941. Several specimens were collected at these various localities which makes certain the identification of this species.—V. M. T.